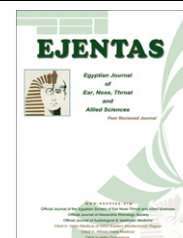




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# Unusual presentation of foreign body in larynx

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## KEYWORDS

Foreign body;  
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**Abstract** *Purpose:* Foreign body aspiration is very common in paediatric age group specially 6 months to 4 years of age, but it is relatively unusual entity amongst adult population unless predisposing factor like alcohol or drug intoxication or psychiatric illness.

We are reporting a case of foreign body (sewing needle) aspiration which penetrated through thyroid cartilage anteriorly by its blunt end just above the level of anterior commissure and presented with subcutaneous midline neck swelling, pain and haemoptysis.

*Patient and method:* The study is a case report who presented to the Emergency Department of Postgraduate Institute of Medical Education and Research, Chandigarh, India. All clinical details of the patient were collected and relevant medical literature was reviewed.

*Result and conclusion:* Foreign body aspiration may present as acute development of swelling due to its penetration or extraluminal migration.

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## 1. Introduction

Foreign body ingestion is more common amongst paediatric age group due to increase in hand to mouth activity and curiosity for surrounding. Adults with decreased airway

protective mechanisms, such as persons with mental retardation, alcoholism, psychoses, or neurologic disorders, also are at risk of aspiration. Penetrating foreign body in neck was common in the era of World War I and II secondary to missile fragment, bullet and pellets but nowadays these are very rare. Rarely ingested sharp foreign body in hypopharynx may penetrate through its wall because of its peristaltic movement and may migrate into the surrounding tissue where it may remain silently or can cause various complications.

We are reporting a case of foreign body (sewing needle) aspiration which penetrated through thyroid cartilage and presented as midline neck swelling, pain and haemoptysis.

## 2. Case

A 58 years old female patient was brought to the Emergency Department of Postgraduate Institute of Medical Education and Research, Chandigarh, India, with a complaint of accidental

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ingestion of sewing needle while doing sewing work after her dinner 1 h back followed by neck swelling, pain and haemoptysis.

On examination patient was anxious but haemodynamically stable. Single  $5 \times 5$  mm sized pointed midline neck swelling was seen at the level of thyroid cartilage. Skin overlying the swelling was intact (Fig. 1).

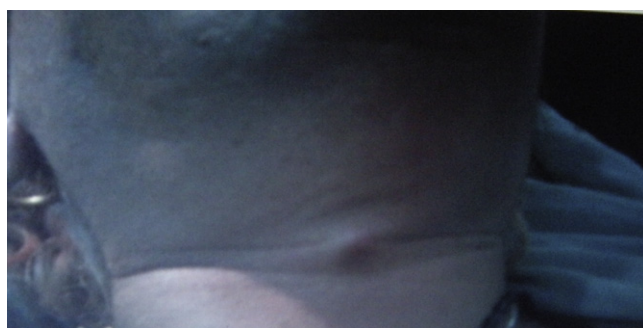
On palpation a sharp point was felt just beneath the most prominent part of the swelling. On indirect laryngoscopy foreign body needle was seen just above the level of true vocal cord lying in anteroposterior direction with a sharp end lying posteriorly between arytenoids reaching about 7 mm short of posterior pharyngeal wall and blunt end was seen penetrating laryngeal framework anteriorly in midline.

Roentgenogram of neck showed radiopaque foreign body lying in anteroposterior direction just above the level of true vocal cord at intervertebral disc space between C4 and 5 (Figs. 2 and 3).

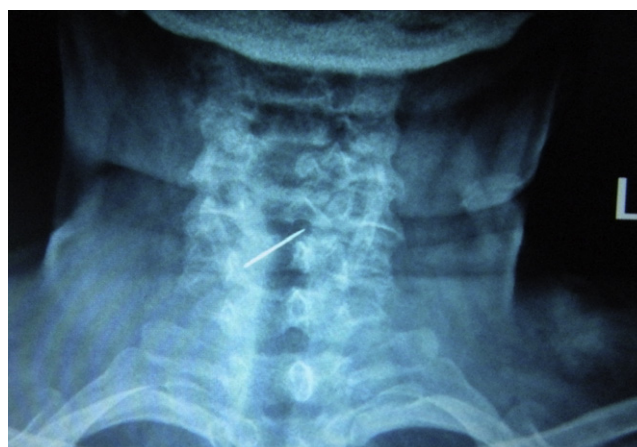
Patient was undertaken for immediate surgical removal of foreign body under monitored anaesthesia care. Injection of 2% xylocaine with adrenaline (1 in 2,00,000) was injected locally. About 2 mm long incision was given over pointed area of swelling. The foreign body was retrieved using artery forceps. The foreign body was a metallic sewing needle of 5 cm in length. Patient was comfortable following surgery and was discharged after overnight observation.

### 3. Discussion

Foreign body aspiration is most common in children aged 6 months to 4 years, a time when they are exploring their surroundings and placing objects into their mouth.<sup>1</sup> Adults with decreased airway protective mechanisms, such as persons with mental retardation, alcoholism, psychoses, or neurologic disorders, also are at risk of aspiration.<sup>2</sup> Foreign body aspiration may appear as an acute onset of respiratory distress, history of aspiration may be lacking or patients may have a silent presentation manifested by secondary complications. Most patients with foreign body aspiration present with an acute onset of choking, respiratory distress, cyanosis, severe coughing, and wheezing.<sup>3</sup> Other patients may present day to weeks after the development of complications, such as haemoptysis, bronchiectasis, and bronchial stricture.<sup>4</sup> On examination, patients may have stridor, crackles, wheezing, decreased breath sounds in the affected lung, or normal results on pulmonary physical examination. Typical symptoms of complete airway obstruction that occur while a person is eating a meal include severe respiratory distress and the inability to speak or cough. Indi-



**Figure 1** Single  $5 \times 5$  mm sized pointed midline neck swelling seen at the level of thyroid cartilage.



**Figure 2** Roentgenogram of soft tissue neck lateral view showing radiopaque foreign body lying in anteroposterior direction causing overlying skin swelling just above the level of true vocal cord posteriorly lying short of posterior pharyngeal wall at intervertebral disc space between C4 and 5.



**Figure 3** Roentgenogram of soft tissue neck anteroposterior view showing radiopaque foreign body lying obliquely in anteroposterior direction opposite C5 vertebrae.

viduals typically place their thumbs and index fingers around their neck.<sup>1</sup>

Foreign body in aerodigestive tract is usually found intraluminal. However if foreign body is sharp it can get impacted at any place in the aerodigestive passage or can migrate due to penetration. Penetration and migration are seen more commonly with hypopharyngeal foreign body than laryngotracheal foreign body due to its peristaltic movements.<sup>5</sup> Transversely oriented foreign body is more likely to penetrate than vertically oriented foreign body. Migrated foreign body may remain asymptomatic or may result in suppurative complication like deep neck abscess, mediastinitis and thyroid gland abscess or vascular complications due to penetration of carotid artery, jugular vein or branches of these vessels.<sup>6-8</sup>

### 4. Summary

Foreign body ingestion is more common amongst paediatric age group, but adults with decreased airway protective mechanisms, such as mental retardation, alcoholism, psychoses, or

neurologic disorders are also at increased risk. Penetrating trauma to laryngeal framework by foreign body generally occurs following external injury and it was common in the era of World War I and II secondary to missile fragment, bullet and pellets but nowadays these are very rare.

We are reporting a case where an aspirated sharp foreign body (sewing needle) got impacted at the level of supraglottis where it penetrated through thyroid cartilage anteriorly by its blunt end just above the level of anterior commissure and presented as subcutaneous midline neck swelling, pain and haemoptysis.

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